

REMARKS/ARGUMENTS

Favorable reconsideration of this application in light of the following discussion is respectfully requested.

Claims 1, 3, 7-11, 13, 26, and 28-30 are presently active in this case. Claims 6, 12, 16, and 27 are canceled without prejudice or disclaimer and Claims 1 and 13 are amended by the present amendment. The changes to the claims are supported by the originally filed application and do not introduce new matter. For example, amended Claim 1 is supported at least by the present specification at page 3, lines 12-17 and Figure 3.

In the outstanding Office Action, Claims 1, 3, 6-13, 16 and 26-30 were rejected under 35 U.S.C. §103(a) as unpatentable over Pages (U.S. Patent No. 5,774,818) in view of Trikha (U.S. Patent No. 6,003,811).

The specification is amended to correct an informality. The amendment to the specification is supported at least by Figure 3. No new matter is added.

It is respectfully noted that reference AO listed on the form PTO-1449 filed with the Information Disclosure Statement submitted March 2, 2005 has not been initialed as considered. It is respectfully requested that a copy of the form PTO-1449 with reference AO initialed as considered be provided with the next Office Communication.

The outstanding rejection is respectfully traversed.

The inventors of the invention recited in Claim 1 solved the problem in operating an aircraft where operating commands are generated for an autopilot operation and for manual operation by two different computers. This configuration creates redundant processing, both sets of which need to be developed and validated during production of the aircraft. Further, the use of redundant processing adds delays to the critical path processing for autopilot operation. Thus, actuator commands are stale by the time they are received by the actuators, leading to less accurate guidance of the aircraft.

To solve this problem, the present inventors created a flight control computer that receives control instructions from the pilot's manual controls *and* automatic pilot instructions from a navigation computer. The flight control computer calculates operating commands to be sent to the actuators during both manual and autopilot operation based on the control instructions or the automatic pilot instructions, respectively. Further, the navigation computer sends the automatic pilot instructions to the flight control computer over a dedicated communication link, minimizing the time needed to send this information and thus minimizing the time needed for the critical path processing. By sending the automatic pilot instructions over a dedicated link, the operating commands are sent to the actuators with a minimum of delay, leading to more accurate control of the aircraft.

Accordingly, amended Claim 1 recites in part, "transmitting automatic pilot instructions from said navigation computer to a flight control computer *over a dedicated communication link.*"

In contrast, Pages describes an automatic piloting device that receives navigational information from computer 12 and instruments 15 and transmits actuator commands to actuators 14.<sup>1</sup> Accordingly, the device described in Pages does not transmit automatic pilot instructions from one computer to another computer, much less transmitting automatic pilot instructions over a dedicated communication link, as recited in amended Claim 1.

Further, Trikha describes a flight control system where autopilot 25 sends flight path change commands to flight computer 26 over a data bus 22.<sup>2</sup> As data bus 22 is not a dedicated communication link, Trikha also does not teach or suggest "transmitting automatic pilot instructions from said navigation computer to a flight control computer over a dedicated communication link." As neither Pages nor Trikha teaches or suggests "transmitting

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<sup>1</sup>See Pages, column 5, lines 43-52.

<sup>2</sup>See Trikha, column 3, lines 18-20 and Figure 1.

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automatic pilot instructions” as recited in amended Claim 1, amended Claim 1 (and Claims 3, 7-11, 26, and 28-30 dependent therefrom) is patentable over Pages in view of Trikha.

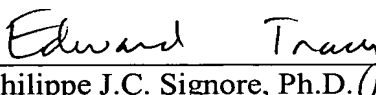
Amended Claim 13 recites similar elements to Claim 1. Accordingly, Claim 13 is patentable over Pages in view of Trikha for at least the reasons described above with respect to Claim 1.

Consequently, in view of the present amendment, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal Allowance. A Notice of Allowance for Claims 1, 3, 7-11, 13, 26, and 28-30 is earnestly solicited.

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact Applicant's undersigned representative at the below listed telephone number.

Respectfully submitted,

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